

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003901**Date Inspected:** 13-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Yu Hong**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

ZPMC ground thru the other side on the U ribs PJP repair on a localized area with approximately 1.1 mm of root gap by 10 mm of length at deck panel DP-050-001 weld # 9 Y location 6640 mm; See photograph below:

The QA inspector informed ZPMC that a critical weld repair (CWR) needed to be submitted due to the root gap excess the maximum allow of 0.5 mm. ZPMC did not perform the repair.

Bay #OBG Assembly

Random observations of the ZPMC's MT examinations at the excavated areas

The QA inspector performed random visual verifications after ZPMC ground the U-ribs PJP at areas identified by Caltrans as crack like indications areas over the LOP areas (Second Time repairs). The QA inspector observed 3 crack like indications as observed below photos.

MT Caltrans

The QA Inspector performed MT after ZPMC welded (at areas excavated by ZPMC with approximately 9.6 mm of depth) the root pass (weld repair) of the U-ribs PJP at 22 areas identified by Caltrans as crack like indications at the deck Panel DP-051-001 welds 01 thru 10. The QA inspector did not found any relevant indications.

The QA Inspector performed MT after ZPMC welded (at areas excavated by ZPMC with approximately 9.6 mm of depth) the root pass (weld repair) of the U-ribs PJP at 21 areas identified by Caltrans as crack like indications at

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the deck Panel DP-050-001 welds 01 thru 10. The QA inspector did not find any relevant indications.

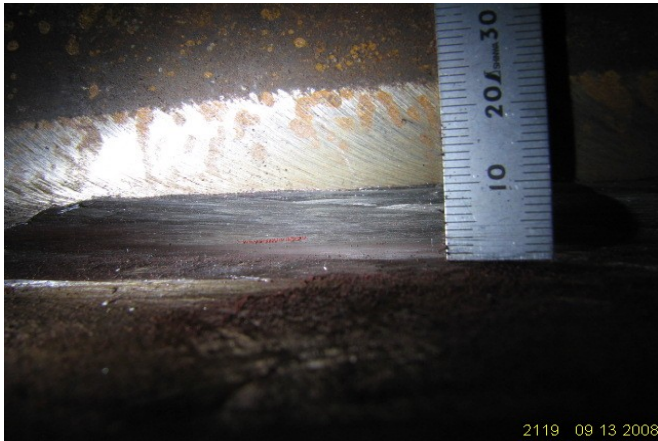
UT/ UTPA

The QA inspector performed Conventional and Phased array examination at 10 areas repaired by ZPMC. The QA inspector found 2 remaining crack like indications that appeared to be extended inside of the 9.6 mm depth of penetration.

The QA inspector had a conversation with ZPMC representative; ZPMC representative asked if ZPMC needed to repair those two areas. The QA inspector informed that the QA found those areas unacceptable but Caltrans representative could not direct them to make repairs. ZPMC resolved to perform a second repair at these areas DP-049-001 weld # 6 Y 13260mm and W-2 Y10275 mm.

Note: ZPMC was not searching for indications; ZPMC was grinding up to 10 mm and MT.

ABF representative on site show a report of the deck panel DP-050-001; ABF stated that it was observed 12 indications that appeared to be cracks from 17 excavated areas. Most of the repairs were made during date shift.



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Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco, 858 344-8746, who represents the Office of Structural Materials for your project.

Inspected By:	Acuna,Alfredo	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer
